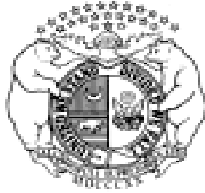


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0002666

Owner: Lafarge Corporation
Address: 2200 Courtney Road, Sugar Creek, MO 64050

Continuing Authority: Same as above
Address: Same as above

Facility Name: Lafarge Corporation, Sugar Creek Plant
Facility Address: 2000 Courtney Road, Sugar Creek, MO 64050

Legal Description: See page 2
Latitude/Longitude: See page 2

Receiving Stream: Tributary to Missouri River (U)
First Classified Stream and ID: Missouri River (P)(00356)
USGS Basin & Sub-watershed No.: (10300101-050003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

February 8, 2002
Effective Date


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

February 7, 2007
Expiration Date
MO 780-0041 (10-93)

Interim Director of Staff, Clean Water Commission

Facility Description (continued)

Outfall #001 - Portland Cement Kiln - SIC #3241

Storm water runoff.

Design flow is 1.3 MGD.

Legal Description: NE $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 14, T50N, R32W, Jackson County

Latitude/Longitude: +3909025/-09424452

Outfall #003 - Sanitary - SIC #4952

Extended aeration/sludge disposal is by contract hauler.

Design population equivalent is 70.

Design flow is 0.006 MGD.

Design sludge production is 1.47 dry tons per year.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 14, T50N, R32W, Jackson County

Latitude/Longitude: +3908459/-09424597

Outfall #005 - Portland Cement Kiln - SIC #3241

Storm water runoff.

Design flow is 0.5 MGD.

Legal Description: NW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec 23, T50N, R32W, Jackson County

Latitude/Longitude: +3908423/-09425049

Outfall #006 - Portland Cement Kiln - SIC #3241

Stormwater runoff/non-contact cool water.

Design flow is 0.125 MGD.

Legal Description: NW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec 23, T50N, R32W, Jackson County

Latitude/Longitude: +3908403/-09425075

Outfall #007 - Portland Cement Kiln - SIC #3241

Stormwater runoff/non-contact cool water/sedimentation pond.

Design flow is 0.04 MGD.

Legal Description: SE $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 13, T50N, R32W, Jackson County

Latitude/Longitude: +3908498/-09423359

Outfall #009 - Portland Cement Kiln - SIC #3241

Storm water runoff.

Design flow is 2.3 MGD.

Legal Description: NE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec 22, T50N, R32W, Jackson County

Latitude/Longitude: +3908247/-09425200

Outfall #010 - Portland Cement Kiln - SIC #3241

Storm water runoff.

Design flow is 3.3 MGD.

Legal Description: NE $\frac{1}{4}$, NE $\frac{1}{4}$, Sec 22, T50N, R32W, Jackson County

Latitude/Longitude: +3908142/-09425295

Outfall #012 - Portland Cement Kiln - SIC #3241

Stormwater runoff/non-contact cooling water/ quarry dewatering/sedimentation pond.

Design flow is 0.069 MGD.

Legal Description: SW $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 14, T50N, R32W, Jackson County

Latitude/Longitude: +3908481/-09425579

Outfall #013 - Portland Cement Kiln - SIC #3241

Stormwater runoff/non-contact cooling water.

Design flow is 0.125 MGD.

Legal Description: NW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec 23, T50N, R32W, Jackson County

Latitude/Longitude: +3908403/-09425075

Outfalls #002, #004, #008 & #011 have been consolidated into Outfall #012

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 6	
					PERMIT NUMBER MO-0002666	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001, #009 & 010</u>						
Flow	MGD	*		*	once/year	24 hr. estimate
Total Suspended Solids	mg/L	100		50	once/year	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/year	grab
Oil and Grease	mg/L	15		10	once/year	grab
pH - Units	SU	***		***	once/year	grab
Precipitation	inches	*		*	once/weekday	24 hr. total
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2002</u> .						
<u>Outfall #003</u>						
Flow	MGD	*		*	once/month	24 hr. total
Biochemical Oxygen Demand	mg/L		45	30	once/month	mod. comp. (Note 1)
Total Suspended Solids	mg/L		45	30	once/month	mod. comp. (Note 1)
pH-Units	SU	***		***	once/month	grab
<u>Outfalls #005, #006 & #007</u>						
Flow	MGD	*		*	once/quarter**	24 hr. estimate
Total Suspended Solids (Note 2)	mg/L	50		50	once/quarter**	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab
Oil and Grease	mg/L	15		10	once/quarter**	grab
pH - Units (Note 2)	SU	***		***	once/quarter**	grab
Precipitation	inches	*		*	once/weekday	24 hr. total
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>April 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 4 of 6	
					PERMIT NUMBER MO-0002666	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
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		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #012</u> Flow	MGD	*		*	once/quarter**	24 hr. estimate
Total Suspended Solids (Note 2)	mg/L	100		50	once/quarter**	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/year	grab
Temperature	°C	(Note 4)		(Note 4)	once/quarter**	grab
pH - Units	SU	***		***	once/year	grab
Precipitation	inches	*		*	once/weekday	24 hr. total
<u>Outfall #013</u> Temperature, outlet	°C	(Notes 3 & 4)		(Notes 3 & 4)	once/quarter**	grab
Temperature, inlet	°C	*		*	once/quarter**	grab
Total Suspended Solids	lbs/day	24		24	once/quarter**	grab
pH - Units	SU	***		***	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>April 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
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MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

** Sample once per quarter in the months of March, June, September and December.

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 - A composite sample made up from a minimum of four grab samples collected within a 24 hour period with a minimum of two hours between each grab sample.

Note 2 - Any untreated overflow from facilities designed, constructed, and operated to treat the volume of runoff from materials storage piles which is associated with a 10-year, 24-hour rainfall event shall not be subject to the pH and TSS limitations stipulated.

Note 3 - The outlet temperature shall not exceed a three degrees Centigrade (3°C) rise above the inlet temperature.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 4 - Effluent shall not elevate or depress the temperature of the receiving stream beyond the mixing zone more than five degrees Fahrenheit (5°F). The stream temperature beyond the mixing zone shall not exceed ninety degrees Fahrenheit (90°F) due to the effluent.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Changes in Discharges of Toxic Substances
The permittee shall notify the Director as soon as it knows or has reason to believe:
 - (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
4. Report as no-discharge when a discharge does not occur during the report period.
5. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
 - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (a) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids that are removed from the domestic wastewater treatment lagoon during lagoon clean-out and maintenance activities. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.
8. Permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) or the facility in accordance with the guidelines described in Storm Water Management For Industrial Activities, Developing Pollution Prevention Plans and Best Management Activities, EPA document number EPA 832-R-92-006, published by the USEPA, September 1992, or other appropriate guidelines. The SWPPP must be kept on site. The SWPPP must include:
 - (a) A listing of Best Management Practices (BMPs) to be implemented at the facility to control and minimize the amount of potential contaminants that may contact storm water.
 - (b) A schedule for implementing the BMPs.
 - (c) A schedule for a monthly site inspection and brief written report or inspection log. The report or log should include observations and evaluations of BMP condition, effectiveness, deficiencies, and corrective measures to be taken. Inspection reports must be kept on site and made available to MDNR personnel upon request.
 - (d) A provision to designate an individual as responsible for environmental matters.
 - (e) A provision for training all involved personnel in material handling and storage, and housekeeping of maintenance areas.

Date of Fact Sheet: September 11, 2000

Date of Public Notice: October 27, 2000

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0002666

FACILITY NAME: Lafarge Corporation, Sugar Creek Plant

OWNER NAME: Lafarge Corporation

LOCATION: Portions of Sections 13, 14, 22, and 23, T50N, R32W, County: Jackson

RECEIVING STREAM: Missouri River and Mill Creek

FACILITY CONTACT PERSON: Steve Kidwell, Environmental Manager
TELEPHONE: (816)252-0333

FACILITY DESCRIPTION AND RATIONALE

The Lafarge Corporation has applied for modification of Missouri State Operating Permit (MSOP) number MO-0002666 for its Sugar Creek Plant, a Portland Cement Manufacturing Facility. The proposed modified permit is for the discharge of treated sanitary wastewater, non-contact cooling water, limestone mine dewatering, and stormwater. The requested modification is to combine existing outfalls #002, #004, #008, and #011 into proposed outfall #012 for monitoring purposes. During review of the modification request and existing permit, other modifications were deemed necessary in order to comply with federal and state guidelines and regulations. These additional modifications include reducing the total suspended solids limitations and changing the temperature limitations. Outfall #013 was added to separate and facilitate monitoring of the process cooling water from stormwater flows.

Discharges will be to the Missouri River, which is protected for the beneficial uses of livestock/wildlife watering, aquatic life protection, irrigation, drinking water supply, industrial use, and boating, and Mill Creek, which is unclassified.

Rationale for effluent limits are as follows:

The facility is subject to effluent guidelines under 40 CFR 411 promulgated by the U.S. Environmental Protection Agency. Specifically, outfalls #005, #006, #007, and #012 are subject to Subpart C (411.30, 411.31, and 411.37). Outfall #013 is subject to Subpart A (411.10, 411.13, and 411.17) due to the non-contact cooling water used to cool machinery used in the manufacturing process. Calculation of the Total Suspended Solids limit for outfall #013 is as follows:

$$\begin{aligned} &0.005 \text{ lbs/1000 lbs of product (from EPA guideline)} * 2400 \text{ tons of product/day} * \\ &2000 \text{ lbs/ton} * 1/1000 = 24 \text{ lbs/day} \end{aligned}$$

FACILITY DESCRIPTION AND RATIONALE (continued)

Outfall #003, sanitary wastewater treatment plant, is subject to effluent regulations under 10 CSR 20-7.015 promulgated by the Missouri Clean Water Commission.

The permit writer also used "Best Professional Judgement" to consider pollutants believed present and established limits based on good housekeeping and/or physical treatment of wastewater. Monitoring is being required on other parameters known or suspected to be present in order to obtain additional information to determine if there is need to limit those pollutants in any reissued permits. Best Management Practices are also required to complete the limitations and monitoring in order to insure that pollutants sources are as isolated from water as is feasible.

This permit will be issued for a period of five years.